

3745-266-100

Applicability- boilers and industrial furnaces.

(A) Rules 3745-266-100 to 3745-266-112 of the Administrative Code apply to hazardous waste burned or processed in a "boiler" or "industrial furnace" (as those terms are defined in rule 3745-50-10 of the Administrative Code) irrespective of the purpose of burning or processing, except as provided by paragraphs (B), (C), (D), (G), and (H) of this rule. In rules 3745-266-100 to 3745-266-112 of the Administrative Code, the term "burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of rules 3745-266-104, 3745-266-105, 3745-266-106, and 3745-266-107 of the Administrative Code apply to facilities operating under permit by rule or under an Ohio hazardous waste permit as specified in rules 3745-266-102 and 3745-266-103 of the Administrative Code.

(B) Integration of the maximum achievable control technology (MACT) standards.

(1) Except as provided by paragraphs (B)(2), (B)(3), and (B)(4) of this rule, Chapter 3745-266 of the Administrative Code does not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to regulation under the hazardous waste permit requirements after February 16, 2009, or no longer applies when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the ~~maximum achievable control technology (MACT)~~ requirements of 40 CFR Part 63 subpart EEE by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 CFR 63.1207(j) and 40 CFR 63.1210(d) that documents compliance with 40 CFR Part 63 subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, hazardous waste installation and operation permit conditions ~~that were based on the standards of Chapter 3745-266 of the Administrative Code will continue to be in effect until they~~ the conditions are removed from the permit, or the permit is revoked, unless the permit expressly provides otherwise.

(2) The following standards continue to apply:

(a) If the owner or operator elects to comply with paragraph (A)(1)(a) of rule 3745-50-235 of the Administrative Code to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, paragraph (E)(1) of rule 3745-266-102 of the Administrative Code that requires compliance with the operating requirements specified in the permit at all times that hazardous waste is in the unit, and paragraph (E)(2)(c) of rule 3745-266-102 of the Administrative Code that requires compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;

- (b) The closure requirements of paragraph (E)(11) of rule 3745-266-102 and paragraph (L) of rule 3745-266-103 of the Administrative Code.
 - (c) The standards for direct transfer of rule 3745-266-111 of the Administrative Code;
 - (d) The standards for regulation of residues of rule 3745-266-112 of the Administrative Code; ~~and~~
 - (e) The applicable requirements of Chapters 3745-54 and 3745-65 and rules 3745-55-10 to 3745-55-20, 3745-55-40 to 3745-55-51, 3745-66-10 to 3745-66-21, and 3745-66-40 to 3745-66-48 of the Administrative Code, 40 CFR Part 264 subparts BB and CC, and 40 CFR Part 265 subparts BB and CC.
- (3) Boilers or hydrochloric acid production furnaces that are area sources under 40 CFR 63.2 for which owners or operators elect not to comply with the emission standards under 40 CFR 63.1216, 40 CFR 63.1217, and 40 CFR 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine remain subject to:
- (a) Rule 3745-266-105 of the Administrative Code titled "Standards to control particulate matter";
 - (b) Rule 3745-266-106 of the Administrative Code titled "Standards to control metal emissions," except for mercury"; and
 - (c) Rule 3745-266-107 of the Administrative Code titled "Standards to control hydrogen chloride and chlorine gas emissions."
- (4) The particulate matter standard of rule 3745-266-105 of the Administrative Code remains in effect for boilers for which owners or operators elect to comply with the alternative to the particulate matter standard under 40 CFR 63.1216(e) and 40 CFR 63.1217(e).
- (C) The following hazardous wastes and facilities are not subject to regulation under rules 3745-266-100 to 3745-266-112 of the Administrative Code:
- (1) Used oil burned for energy recovery that is also a hazardous waste solely because ~~it~~ the used oil exhibits a characteristic of hazardous waste identified in rules 3745-51-20 to 3745-51-24 of the Administrative Code. Such used oil is subject to regulation under Chapter 3745-279 of the Administrative Code.

- (2) Gas recovered from hazardous waste landfills or solid waste landfills when such gas is burned for energy recovery.
 - (3) Hazardous wastes that are exempt from regulation under rule 3745-51-04 and paragraphs (A)(3)(c) and (A)(3)(d) of rule 3745-51-06 of the Administrative Code.
 - (4) Coke ovens, if the only hazardous waste burned is EPA hazardous waste number K087, decanter tank tar sludge from coking operations.
- (D) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste) that process hazardous waste solely for metal recovery are conditionally exempt from regulation under rules 3745-266-100 to 3745-266-112 of the Administrative Code, except for rules 3745-266-101 and 3745-266-112 of the Administrative Code.
- (1) To be exempt from rules 3745-266-102 to 3745-266-111 of the Administrative Code, an owner or operator of a metal recovery furnace or mercury recovery furnace shall comply with the following requirements, except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall comply with paragraph (D)(3) of this rule, and owners or operators of lead recovery furnaces that are subject to regulation under the secondary lead smelting "National Emissions Standards for Hazardous Air Pollutants" (NESHAP) shall comply with paragraph (H) of this rule:
 - (a) Provide a one-time written notice to the director that indicates all of the following:
 - (i) The owner or operator claims exemption under paragraph (D)(1) of this rule;
 - (ii) The hazardous waste is burned solely for metal recovery consistent with paragraph (D)(2) of this rule;
 - (iii) The hazardous waste contains recoverable levels of metals; and
 - (iv) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of ~~paragraphs~~paragraph (D) to (D)(3)(b)(iii) of this rule;

- (b) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with ~~paragraphs~~paragraph (D) ~~to (D)(3)(b)(iii)~~ of this rule by using appropriate methods; and
 - (c) Maintain at the facility for at least three years records to document compliance with ~~paragraphs~~paragraph (D) ~~to (D)(3)(b)(iii)~~ of this rule including limits on levels of toxic organic constituents and British thermal unit (Btu) value of the waste, and levels of recoverable metals in the hazardous waste compared to normal nonhazardous waste feedstocks.
- (2) A hazardous waste that meets either of the following criteria is not processed solely for metal recovery:
 - (a) The hazardous waste has a total concentration of organic compounds listed in the appendix to rule 3745-51-11 of the Administrative Code that exceeds five hundred parts per million (ppm) by weight, as-fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as-generated may be reduced to the five hundred ppm limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the five hundred ppm limit is prohibited, and documentation that the waste has not been impermissibly diluted shall be retained in the records required by paragraph (D)(1)(c) of this rule; or
 - (b) The hazardous waste has a heating value of five thousand Btu per pound or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the five thousand Btu per pound limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the five thousand Btu per pound limit is prohibited, and documentation that the waste has not been impermissibly diluted shall be retained in the records required by paragraph (D)(1)(c) of this rule.
- (3) To be exempt from rules 3745-266-102 to 3745-266-111 of the Administrative Code, an owner or operator of a lead or nickel-chromium or mercury recovery furnace (except for owners or operators of lead recovery furnaces subject to regulation under the secondary lead smelting NESHAP) or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing; shall provide a one-time written notice to the director that identifies each hazardous waste burned and that specifies whether the owner or operator claims an exemption for each waste under this paragraph or paragraph (D)(1) of this rule. The owner or operator shall comply with paragraph (D)(1) of this rule for those wastes claimed to be exempt under paragraph (D)(1) of

this rule and shall comply with paragraphs (D)(3)(a) and (D)(3)(b) of this rule for those wastes claimed to be exempt under ~~paragraphs~~paragraph (D)(3) to (D)(3)(b)(iii) of this rule.

- (a) The hazardous wastes listed in appendices A, B, and C to this rule and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from paragraph (D)(1) of this rule, provided that:
- (i) A waste listed in appendix A to this rule shall contain recoverable levels of lead, a waste listed in appendix B to this rule shall contain recoverable levels of nickel or chromium, a waste listed in appendix C to this rule shall contain recoverable levels of mercury and contain less than five hundred ppm of organic constituents in the appendix to rule 3745-51-11 of the Administrative Code, and baghouse bags used to capture metallic dusts emitted by steel manufacturing shall contain recoverable levels of metal; and
 - (ii) The waste does not exhibit the toxicity characteristic of rule 3745-51-24 of the Administrative Code for an organic constituent; and
 - (iii) The waste is not a hazardous waste listed in rules 3745-51-30 to 3745-51-35 of the Administrative Code because it the waste is listed for an organic constituent as identified in the appendix to rule 3745-51-30 of the Administrative Code; and
 - (iv) The owner or operator certifies in the one-time notice that hazardous waste is burned under paragraph (D)(3) of this rule and that sampling and analysis will be conducted or other information will be obtained as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to paragraph (D)(1)(b) of this rule, and records to document compliance with paragraph (D)(3) of this rule shall be kept for at least three years.
- (b) The director may decide on a case-by-case basis that the toxic organic constituents in a material listed in appendix A, B, or C to this rule that contains a total concentration of more than five hundred ppm toxic organic compounds listed in the appendix to rule 3745-51-11 of the Administrative Code; may pose a hazard to human health and the environment when burned in a metal recovery furnace that is exempt from rules 3745-266-100 to 3745-266-112 of the Administrative Code.

In that situation, after adequate notice and opportunity for comment, the metal recovery furnace will become subject to rules 3745-266-100 to 3745-266-112 of the Administrative Code when burning that material. In making the hazard determination, the director will consider the following factors:

- (i) The concentration and toxicity of organic constituents in the material.
 - (ii) The level of destruction of toxic organic constituents provided by the furnace.
 - (iii) Whether the acceptable ambient levels established in appendix A or appendix B to rule 3745-266-109 of the Administrative Code may be exceeded for any toxic organic compound that may be emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.
- (E) The standards for direct transfer operations under rule 3745-266-111 of the Administrative Code apply only to facilities subject to the permit standards of rule 3745-266-102 of the Administrative Code or the interim standards of rule 3745-266-103 of the Administrative Code.
- (F) The management standards for residues under rule 3745-266-112 of the Administrative Code apply to any boiler or industrial furnace that burns hazardous waste.
- (G) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces) that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under rules 3745-266-100 to 3745-266-112 of the Administrative Code, except for rule 3745-266-112 of the Administrative Code. To be exempt from rules 3745-266-101 to 3745-266-111 of the Administrative Code, an owner or operator shall:
- (1) Provide a one-time written notice to the director that indicates the following:
 - (a) The owner or operator claims exemption under ~~paragraphs~~paragraph (G) to (G)(3) of this rule;
 - (b) The hazardous waste is burned for legitimate recovery of precious metal;
and

- (c) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of ~~paragraphs~~paragraph (G) to (G)(3) of this rule; and
- (2) Sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metals; and
- (3) Maintain at the facility for at least three years records to document that all hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.
- (H) Owners or operators of lead recovery furnaces that process hazardous waste for recovery of lead and that are subject to regulation under the secondary lead smelting NESHAP; are conditionally exempt from regulation under rules 3745-266-100 to 3745-266-112 of the Administrative Code, except for rule 3745-266-101 of the Administrative Code. To be exempt, an owner or operator shall provide a one-time notice to the director that identifies each hazardous waste burned and that specifies that the owner or operator claims an exemption under this paragraph. The notice also shall state that the waste burned has a total concentration of non-metal compounds listed in the appendix to rule 3745-51-11 of the Administrative Code of less than five hundred ppm by weight, as fired and as provided in paragraph (D)(2)(a) of this rule, or is listed in appendix A to this rule.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-50-11 of the Administrative Code titled "Incorporated by reference."]

Effective: 9/29/2021

Five Year Review (FYR) Dates: 6/7/2021 and 06/05/2026

CERTIFIED ELECTRONICALLY

Certification

09/14/2021

Date

Promulgated Under: 119.03
Statutory Authority: 3734.12
Rule Amplifies: 3734.12
Prior Effective Dates: 12/07/2004, 02/16/2009, 10/31/2015

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APPENDIX

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Appendix A to rule 3745-266-100 of the Administrative Code

Lead-Bearing Materials That May Be Processed in Exempt Lead Smelters:

A. Exempt Lead-Bearing Materials When Generated Or Originally Produced By
Lead-Associated Industries *

- Acid dump or fill solids
- Sump mud
- Materials from laboratory analyses
- Acid filters
- Baghouse bags
- Clothing (e.g., coveralls, aprons, shoes, hats, gloves)
- Sweepings
- Air filter bags and cartridges
- Respiratory cartridge filters
- Shop abrasives
- Stacking boards
- Waste shipping containers (e.g., cartons, bags, drums, cardboard)
- Paper hand towels
- Wiping rags and sponges
- Contaminated pallets
- Water treatment sludges, filter cakes, residues, and solids
- Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries (e.g., K069 and D008 wastes)
- Spent grids, posts, and separators
- Spent batteries
- Lead oxide and lead oxide residues
- Lead plates and groups
- Spent battery cases, covers, and vents
- Pasting belts
- Water filter media
- Cheesecloth from pasting rollers
- Pasting additive bags
- Asphalt paving materials

B. Exempt Lead-Bearing Materials When Generated or Originally Produced By Any Industry

- Charging jumpers and clips
- Platen abrasive
- Fluff from lead wire and cable casings
- Lead-based pigments and compounding pigment dust

- * Lead-associated industries are lead smelters, lead- acid battery manufacturing, and lead chemical manufacturing (e.g., manufacturing of lead oxide or other lead compounds).

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Appendix B to rule 3745-266-100 of the Administrative Code

Nickel or Chromium-Bearing Materials That May Be Processed in
Exempt Nickel-Chromium Recovery Furnaces

- A. Exempt Nickel or Chromium-Bearing Materials when Generated by Manufacturers or Users of Nickel, Chromium, or Iron
- Baghouse bags
 - Raney nickel catalyst
 - Floor sweepings
 - Air filters
 - Electroplating bath filters
 - Wastewater filter media
 - Wood pallets
 - Disposable clothing (coveralls, aprons, hats, and gloves)
 - Laboratory samples and spent chemicals
 - Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
 - Respirator cartridge filters
 - Paper hand towels
- B. Exempt Nickel or Chromium-Bearing Materials when Generated by Any Industry
- Electroplating wastewater treatment sludges (F006)
 - Nickel solutions and chromium-containing solutions
 - Nickel, chromium, and iron catalysts
 - Nickel-cadmium and nickel-iron batteries
 - Filter cake from wet scrubber system water treatment plants in the specialty steel industry*
 - Filter cake from nickel-chromium alloy pickling operations *

* If a hazardous waste under an authorized state program. (Ohio's program is authorized.)

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APPENDIX

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Appendix C to rule 3745-266-100 of the Administrative Code

Mercury Bearing Wastes That May Be Processed
in Exempt Mercury Recovery Units

These are exempt mercury-bearing materials with less than five hundred parts per million of organic constituents in the appendix to rule 3745-51-11 of the Administrative Code when generated by manufacturers or users of mercury or mercury products.

1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper
5. Protective clothing
6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples
11. K106 and other wastewater treatment plant sludge and filter cake
12. Mercury cell sump and tank sludge
13. Mercury cell process solids
14. Recoverable levels of mercury contained in soil